of the need for and alternatives to ocean dumping, be required to terminate all ocean dumping by a specified date, to phase out all ocean dumping over a specified period or periods, to continue research and development of alternative methods of disposal and make periodic reports of such research and development in order to provide additional information for periodic review of the need for and alternatives to ocean dumping, or to take such other action as the Administrator, the Regional Administrator, or District Engineer, as the case may be, determines to be necessary or appropriate.

Subpart D—Impact of the Proposed Dumping on Esthetic, Recreational and Economic Values

§ 227.17 Basis for determination.

- (a) The impact of dumping on esthetic, recreational and economic values will be evaluated on an individual basis using the following considerations:
- (1) Potential for affecting recreational use and values of ocean waters, inshore waters, beaches, or shore-lines:
- (2) Potential for affecting the recreational and commercial values of living marine resources.
- (b) For all proposed dumping, full consideration will be given to such nonquantifiable aspects of esthetic, recreational and economic impact as:
- Responsible public concern for the consequences of the proposed dumping;
- (2) Consequences of not authorizing the dumping including without limitation, the impact on esthetic, recreational and economic values with respect to the municipalities and industries involved.

§227.18 Factors considered.

The assessment of the potential for impacts on esthetic, recreational and economic values will be based on an evaluation of the appropriate characteristics of the material to be dumped, allowing for conservative rates of dilution, dispersion, and biochemical degradation during movement of the materials from a disposal site to an area of

significant recreational or commercial value. The following specific factors will be considered in making such an assessment:

- (a) Nature and extent of present and potential recreational and commercial use of areas which might be affected by the proposed dumping;
- (b) Existing water quality, and nature and extent of disposal activities, in the areas which might be affected by the proposed dumping;
- (c) Applicable water quality standards;
- (d) Visible characteristics of the materials (e.g., color, suspended particulates) which result in an unacceptable estetic nuisance in recreational areas;
- (e) Presence in the material of pathogenic organisms which may cause a public health hazard either directly or through contamination of fisheries or shellfisheries;
- (f) Presence in the material of toxic chemical constituents released in volumes which may affect humans directly;
- (g) Presence in the material of chemical constituents which may be bio-accumulated or persistent and may have an adverse effect on humans directly or through food chain interactions;
- (h) Presence in the material of any constituents which might significantly affect living marine resources of recreational or commercial value.

§ 227.19 Assessment of impact.

An overall assessment of the proposed dumping and possible alternative methods of disposal or recycling will be made based on the effect on esthetic, recreational and economic values based on the factors set forth in this subpart D, including where applicable, enhancement of these values, and the results of the assessment will be expressed, where possible, on a quantitative basis, such as percentage of a resource lost, reduction in use days of recreational areas, or dollars lost in commercial fishery profits or the profitability of other commercial enterprises.